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ABSTRACT

This report from the Kamehameha Early Education Program (KEEP) describes the 1975-76 KEEP staff development program, which was designed to integrate staff development and research. Specific purposes of the program were: (1) to develop the abilities of the teaching staff in teaching, consultation, and research; (2) to conduct pilot research in effective teaching behaviors and methods in the classroom; and (3) to generate the groundwork for broadening the content of KEEP teachers' consultation efforts in the public schools. The structure of the program is outlined, and several projects undertaken by participants are described briefly. A preliminary evaluation of program effectiveness is presented. (Author/RH)

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The Kamehameha Early Education Program

The Kamehameha Early Education Program (KEEP) is a research and development program of The Kamehameha Schools/Bernice P. Bishop Estate. The mission of KEEP is the development, demonstration, and dissemination of methods for improving the education of Hawaiian and Part-Hawaiian children. These activities are conducted at the Ka Na'i Pono Research and Demonstration School, and in public classrooms in cooperation with the State Department of Education. KEEP projects and activities involve many aspects of the educational process, including teacher training, curriculum development, and child motivation, language, and cognition. More detailed descriptions of KEEP's history and operations are presented in Technical Reports #1-4.

Abstract

This report describes the staff development program introduced in 1975-76. The program has multiple purposes: 1) The development of the teaching staff in the areas of teaching, consultation, and research; 2) The conduction of pilot research in effective teaching behaviors and methods in the classroom; and 3) The generation of groundwork for broadening the content of our consultation efforts. The structure of the program is described, as well as some of the projects that have ensued. A preliminary evaluation of the effectiveness of the program with regard to fulfilling its purposes is presented.

Technical Report #62

Integration of Staff Development and Research: Description of the Staff Development Project in Progress for the School Year 1975-1976

Gisela E. Speidel

The staff development program for the school year 1975-1976 differs markedly from the previous staff development enterprises. In the first two years of KEEP school operations, staff training consisted mainly of seminars and practicums in learning principles and research methodology. Guided self-examination of teaching style on video-tapes and analysis of teacher-child interactions constituted the major method for developing teaching and research skills (see Technical Report #7). During the school year 1974-1975, a very structured training program for teaching behavior management skills was held (see Technical Report #41). Simultaneously, teachers assisted in carrying out research projects designed by the research staff.

In the present program, which is still in progress, staff development and research are closely integrated. At the beginning of each semester, the teachers are requested to choose a project investigating a certain teaching behavior or instructional method which they believe, on the basis of their past observations, to facilitate learning in the students at KEEP. Depending on their chosen topic, the teachers are assigned a resource person who is to assist them in collecting information regarding their project. No emphasis is placed on experimental research design and control of variables; it is more what Cronbach (1975) described as short-run empiricism.

Structuring staff development in this fashion grew out of an attempt to accommodate several endeavors simultaneously. We were first of all looking

for a way to enrich our previous research which lacked implications for instruction and curriculum development. Our general strategy had previously consisted of a) the application of findings from the psychological and educational research literature to KEEP classes, and b) the investigation of hypotheses derived from observations of the classroom by the research staff. Generally, these studies showed either no treatment effects or the effects, though statistically significant, were not large enough to be of great educational impact. Although we did not intend to abandon the more traditional research methodology at KEEP, we wanted to tap the teachers as a source of meaningful research hypotheses. Teachers in any school have the most direct contact every day with the children. Constantly making decisions regarding the effectiveness of various teaching behaviors, they are operating on a fund of explicit and implicit hypotheses, but have neither the time nor the training to systematically test these hypotheses.

From the beginning, the teachers at KEEP were expected to learn to work in three different areas -- teaching at the demonstration school, consulting to public school teachers as part of KEEP's dissemination efforts, and participating in the research enterprise. On account of these multiple roles, the teachers are called Educational Specialists or E.S.s. The staff development projects are designed in such a way that the E.S.s can conduct pilot research on some of their pet hypotheses, while simultaneously continuing the training program in teaching, consultation, and research.

Furthermore, the staff development program was also to help extend our consultation efforts. In the past, our training programs for the public schools have addressed mainly the use of management and motivation techniques for the classroom. In having the teachers study a wide variety of instructional skills in their projects, we may be able to expand the content areas of our

training programs.

Finally, we were looking for a way to conduct on-going staff development activities, not only new staff training or "crisis" solutions as in past years.

Structure and Process

This section describes briefly the components of the staff development program and their function.

1. Diary and Data Collection

The E.S.s are requested to hand in weekly diaries describing events that occurred either in regard to their projects, or in their teaching experience that they considered interesting.

The E.S.s do not need to follow a rigid research methodology, but they are required to collect systematic information on the effects of the changes they are instituting. At times, such data collection is difficult and the construction of a good data collection system constitutes a large part of the projects. A great deal of thought and ingenuity is often required.

While the measures developed sometimes are simple, some form of systematic information gathering is crucial to the projects, since the effectiveness of instructional, procedural, or behavioral changes by the teacher can only be assessed by such data. Education generally has excellent ideas and many innovations, but there is a paucity of facts. The systematic data collection in these projects is an attempt to remedy this lack in educational decision making.

2. Resource Person

Each E.S. is assigned or chooses a resource person whose task is to guide, instruct, and give feedback to the E.S. regarding the endeavor. The resource

person is usually a member of the staff development committee described below. Ideally, the resource person has some expertise in the area, at the least he must be able to assist the E.S. in gaining the necessary experience and information for the project.

3. Staff Development Committee

The staff development committee has three members: the program director, the coordinator of school operations, and the coordinator of staff development, who chairs the committee. The committee reviews weekly the progress of the E.S.s and discusses and formulates plans for assisting them in conducting their projects. This weekly progress review is essential to the continued functioning of the projects. Without this regular scrutiny, most projects would soon stagnate, since daily pressures and preparations for the classroom might take priority for the E.S.s and encroach on the time allotted for staff development.

4. Process

The nature of the process between the E.S. and the resource person varies. The main difference lies in the degree of directiveness At one extreme the teacher may take most of the initiative in the formulation and conduction of the project, while the resource person functions more as a sounding board, keeping the E.S.s focused and motivated. At the other extreme, the consultant takes a directive role, instructing the E.S. in specific steps to take. Most of the E.S.-resource person interactions alternate between these two modes, depending upon the stage of the project and problems encountered.

The E.S.s usually choose the topic, question, or problem area that they wish to investigate. However, at times the staff development committee will suggest that an E.S. work on an area which they feel takes priority.

Examples of the Nature and Scope of the Projects

At present, the projects have differed widely both in regard to topic and methodology. To create an understanding of the nature of the staff development program as a whole, some of the undertakings -- many of which are still in progress -- will be described.

Instructing Children in Solving Word Problems in Arithmetic

Teachers at KEEP have observed that their students generally are capable of performing computational operations in Arithmetic, but have great difficulty in solving word problems. This project attempts to locate the source of this difficulty. That is, does this difficulty stem from lack of basic reading skills or from unfamiliarity with the terminology or grammatical structures used in the word problems? If the latter, which specific words or grammatical structures are difficult for the students to comprehend and translate into the appropriate computational formula? Finally, upon location of the source of the difficulty, training methods and materials will be constructed to teach the students to solve such problems. Each training unit will need to be assessed for its efficacy.

Developing Creative Writing Skills

The goal of this enterprise is the development of methods to teach children how to write original, colorful, and well-constructed short stories. Various instructional units for teaching specific skills (e.g., use of appropriate, colorful adjectives) and less specific skills (use of inventive ideas) are constructed and their effect on the quality of the children's stories assessed. Those units which are promising will be refined further; those that have not shown any effect, will be discarded. Eventually, a booklet consisting of guidelines, materials and techniques for teaching creative writing skills to Hawaiian and part-Hawaiian children will be written.

Achieving Clarity of Instruction and of the Teaching of Concepts

This project focuses on clarity of instructions and on methods for teaching concepts. The eventual goal is to develop guidelines for 1) giving clear, concise, and relevant instructions; and 2) choosing appropriate examples that best convey the concept and result in least errors made by the children. Since concepts are generally learned through the kinds of examples given, defining the specific elements that make an example a good one becomes very important. A method for measuring the clarity of instruction has been developed.

Assessing the Instructional Value of Visual Demonstrations

The E.S.s at KEEP have consistently remarked that they have to demonstrate or model all of their instructions so that the students will understand. Verbal instructions by themselves seem to be insufficient. This study attempts to assess the incremental effects of accompanying lessons and discussions with visual demonstrations. An effort is made to evaluate the effects of such demonstrations on a variety of subject matters. The following procedure is being used. The teacher constructs two lessons, which are identical except that one is accompained by appropriate demonstrations. The lessons are then given to two groups of children. The increase in scores from a pre- to a posttest is then compared between the group given the verbal lesson only and the group given the lesson accompanied by the demonstration. If visual models are effective then perhaps comparative information can be gathered on children whose English is more developed than the average KEEP child's. That is, we may investigate the question whether other children gain just as much from such visual demonstration or whether verbal instructions alone are sufficient for them.

Classroom Management

In these projects each E.S. is trained to cope with behavior problems in the classroom and to motivate the children academically. The procedures used

to develop these skills are varied (see Technical Reports #7, #8, and #9). Records on the behavior that the E.S. wishes to increase or decrease, either on her part or on part of the students, are kept to assess the success of the method used to train the particular E.S. Eventually, we hope to be able to match the training procedure with the problem situation and the personality of the consultee.

Consultation Projects

The consultation projects differ somewhat in that the E.S.s are assigned to them and do not determine the focus of the project to any large extent. In terms of staff development, the goal is to train the E.S.s as consultants to other teachers by having them consult to DOE teachers as well as KEEP E.S.s under the guidance of the KEEP Director who is experienced in such procedures.

Simultaneously, these consultation projects are to assist the DOE or KEEP teachers with practical difficulties that they encounter in the classroom.

Discussion

The teachers are in general enthusiastic about their projects. However, as they are also teaching, the classroom activities and lesson preparations do often encroach on their staff development time, and they occasionally need to be reminded of keeping to their schedules.

The program does not eliminate completely the need for crisis solutions to behavior problems with the children. The diaries do not necessarily signal developing problems, mainly because they do not constitute a complete monitoring of the relevant teacher and child behaviors. We have found that the program must be supplemented with on-going observations of the classroom using such observational codes as described in Technical Reports #6, #19, and #41.

At present, the relatively loose format of the staff development program does appear to promote several areas of competence in the E.S.s -- instructional skills, research, and consultation skills -- as well as promoting research and curriculum development.

The potential for development of teaching skills is evident in some of the projects, such as classroom management and clarity of instructions. But even in such a project as the investigation of the importance of visual demonstrations, the E.S. analyzes her instructional behavior, and has many occasions to evaluate whether her lesson, her examples, and materials were effective. With regard to incorporating further teaching skills into our consultation and dissemination efforts, some of the projects are laying important groundwork, but we have not yet come to the point of delineating any instructional package.

As mentioned earlier, no emphasis is placed in these projects on an experimental strategy holding potential extraneous variables constant. The E.S.s are asked only to collect systematic information on what they have done in the best feasible manner and attempt to measure the effects of the changes they have instituted. However, the E.S.s, in conducting such projects, still acquire empirical discipline, a research attitude, and learn something about research methodology (for example, the importance of extraneous variables, the difficulty of holding them constant, and the kinds of inferences and conclusions that are permissible from the information they have gathered). They realize the difficulty of establishing cause and effect relationships. They encounter in these projects some of the complexities and difficulties involved in the research enterprise.

In some of the projects, such as instruction in solving word problems or in creative writing, the goal is to develop booklets giving practical guidelines on methods and materials for teachers to use in the instruction of

their students. The utility of these instructional materials will only be known in the long range future. However, it is KEEP's first step in attempting to devise effective instructional materials for Hawaiian students. Meanwhile the E.S.s learn from their projects the process and method for developing instructional procedures based on an analysis of the task and how to use data to assess the efficacy of those procedures.

Finally, hopefully some of these projects will yield valuable pilot information on meaningful hypotheses regarding the learning process for children at KEEP and children similar to them -- information on instructional methods and techniques that may produce actual educational differences, not only statistical. If the findings of a project are promising, then we have grounds for investigating its elements in a more controlled fashion to provide a sound experimental basis for their application.

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